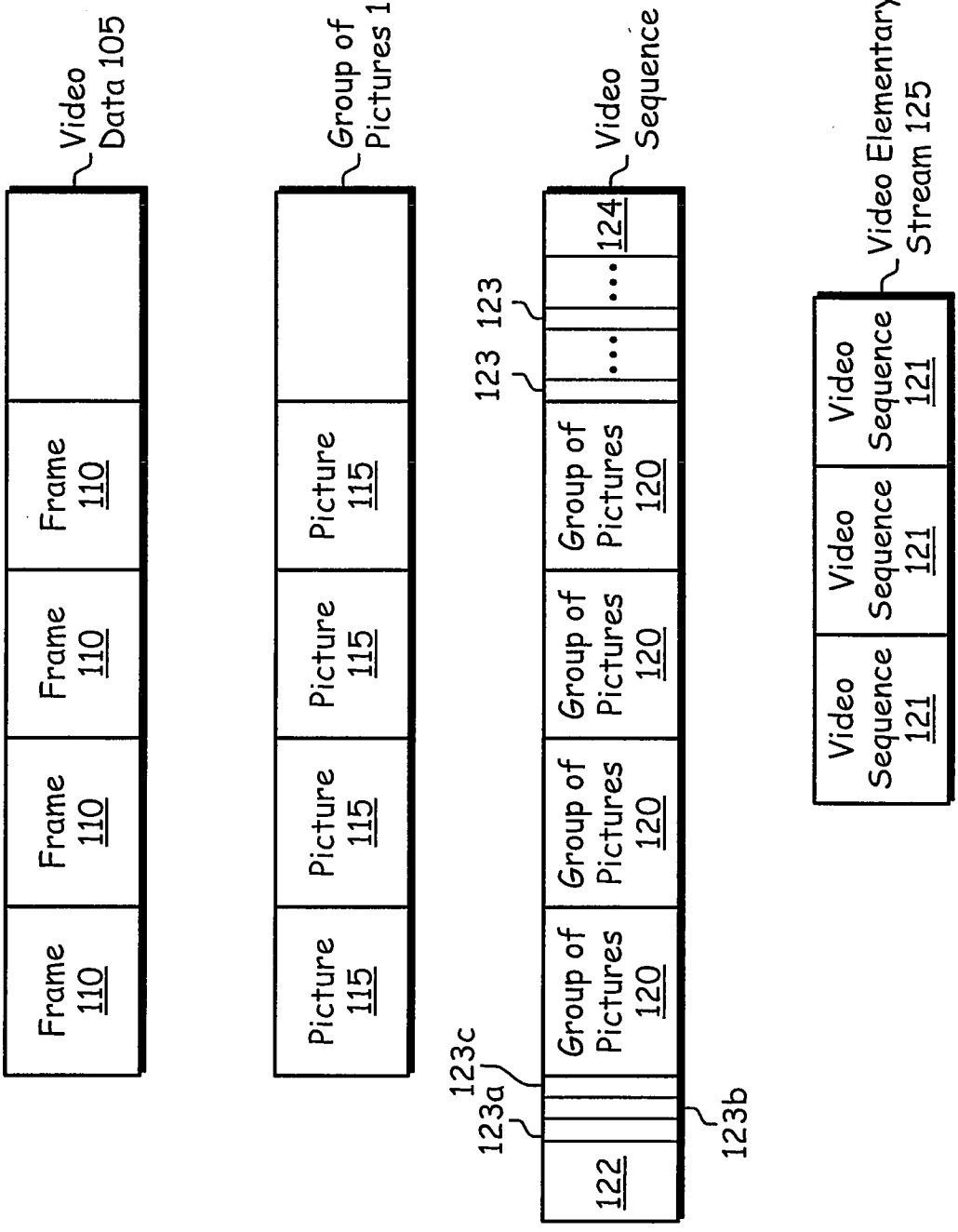
Video Data 105
Frame 110
Frame 110
Frame 110
Frame 110
Group of Pictures 120
Picture 115
Picture 115
Picture 115
Picture 115
Video Sequence 121
123
123
123a
123b
123c
122
Group of Pictures 120
Group of Pictures 120
Group of Pictures 120
Group of Pictures 120
124
Video Elementary Stream 125
Video Sequence 121
Video Sequence 121
Video Sequence 121

FIG. 1

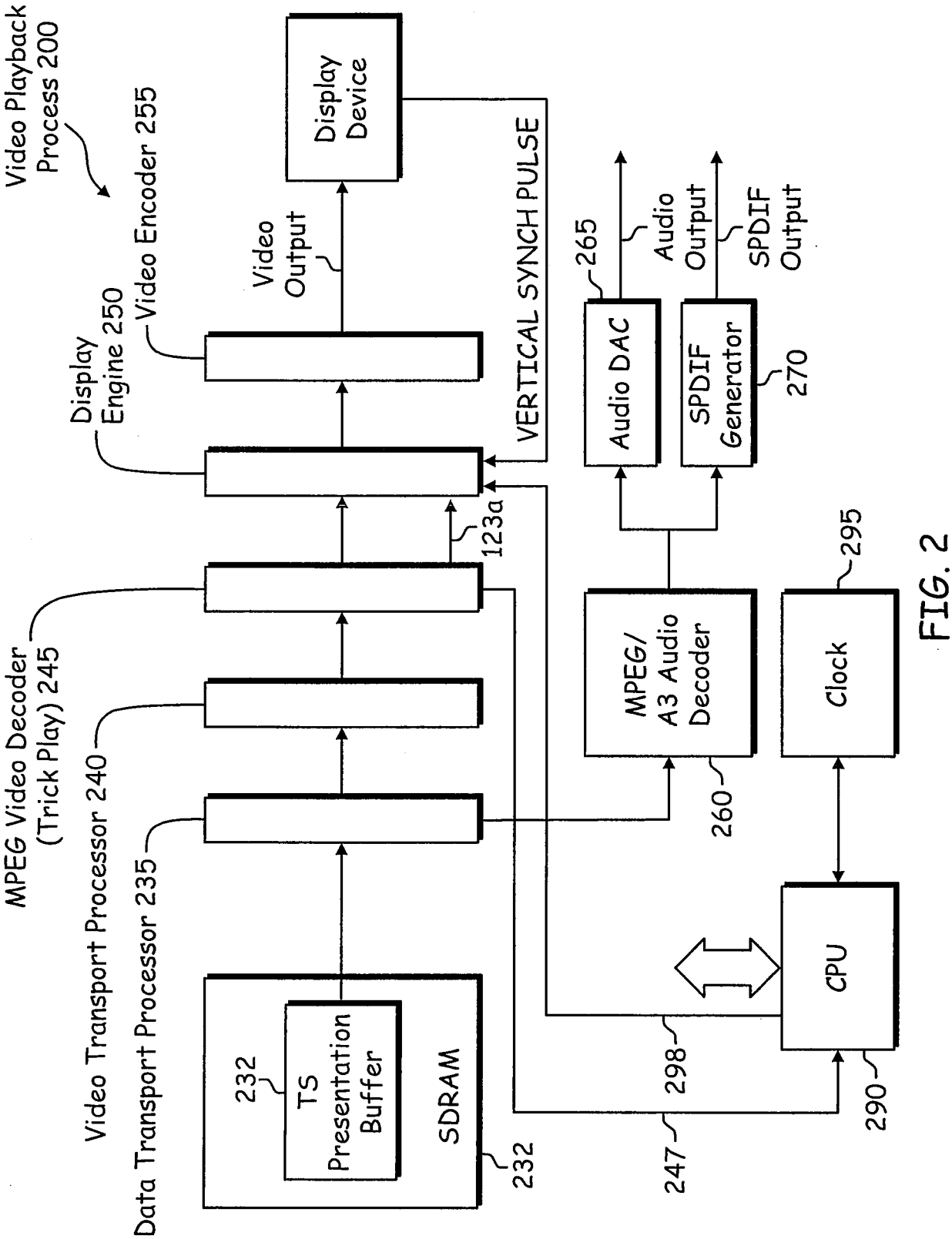
Video Playback Process 200
Video Encoder 255
Display Device
Video Output
Display Engine 250
VERTICAL SYNCH PULSE
265
Audio Output
SPDIF Output
Audio DAC
SPDIF Generator
270
123a
MPEG Video Decoder (Trick Play) 245
Video Transport Processor 240
Data Transport Processor 235
MPEG/ A3 Audio Decoder
260
Clock
295
CPU
298
290
247
232
TS Presentation Buffer
232
SDRAM

FIG. 2

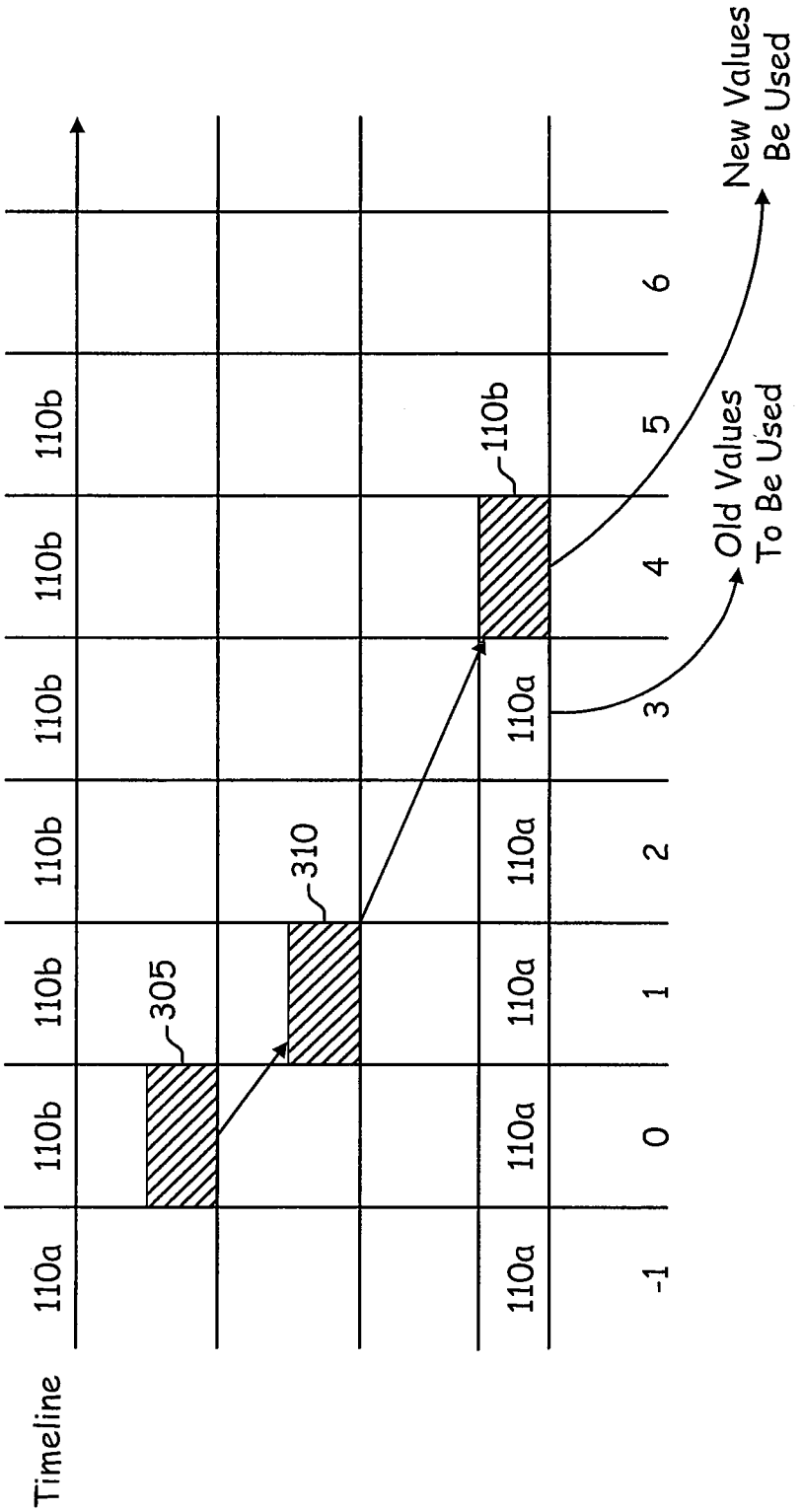
Timeline
110a
110b
110b
110b
110b
110b
110b
110a
110a
110a
110a
110a
110a
110a
110b
110b
305
310
-1
0
1
2
3
4
5
6
Old Values
To Be Used
New Values
Be Used

FIG. 3

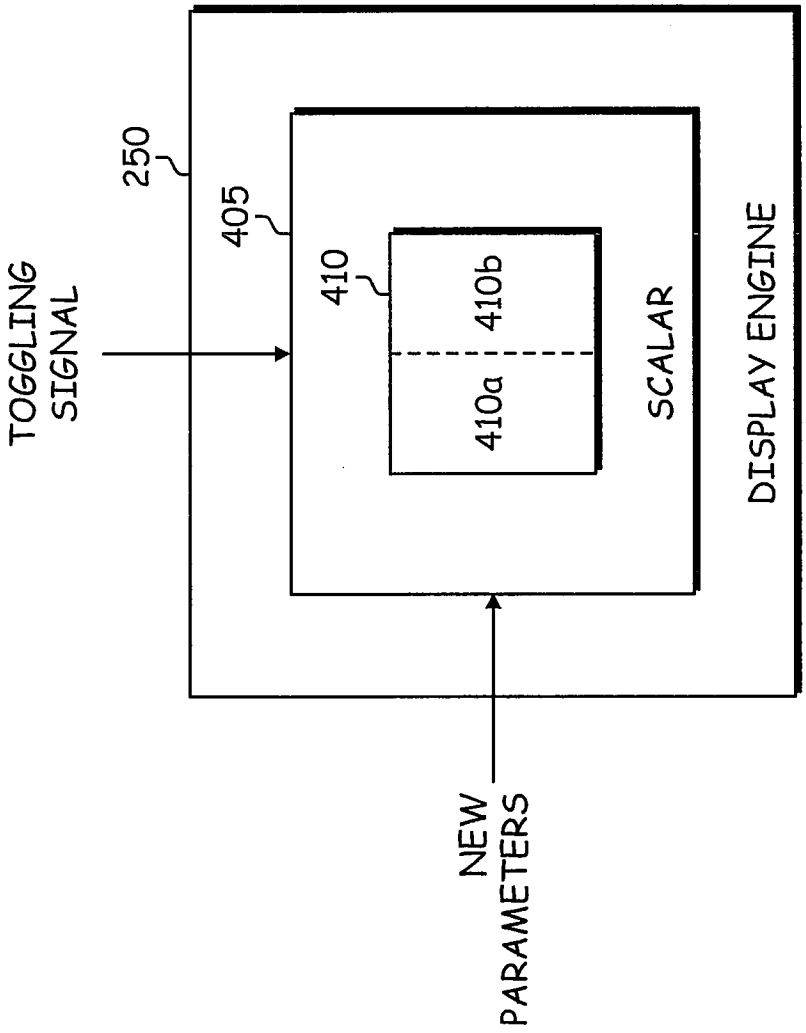
TOGGLING SIGNAL
250
405
410
410b
410a
SCALAR
DISPLAY ENGINE
NEW PARAMETERS

FIG. 4

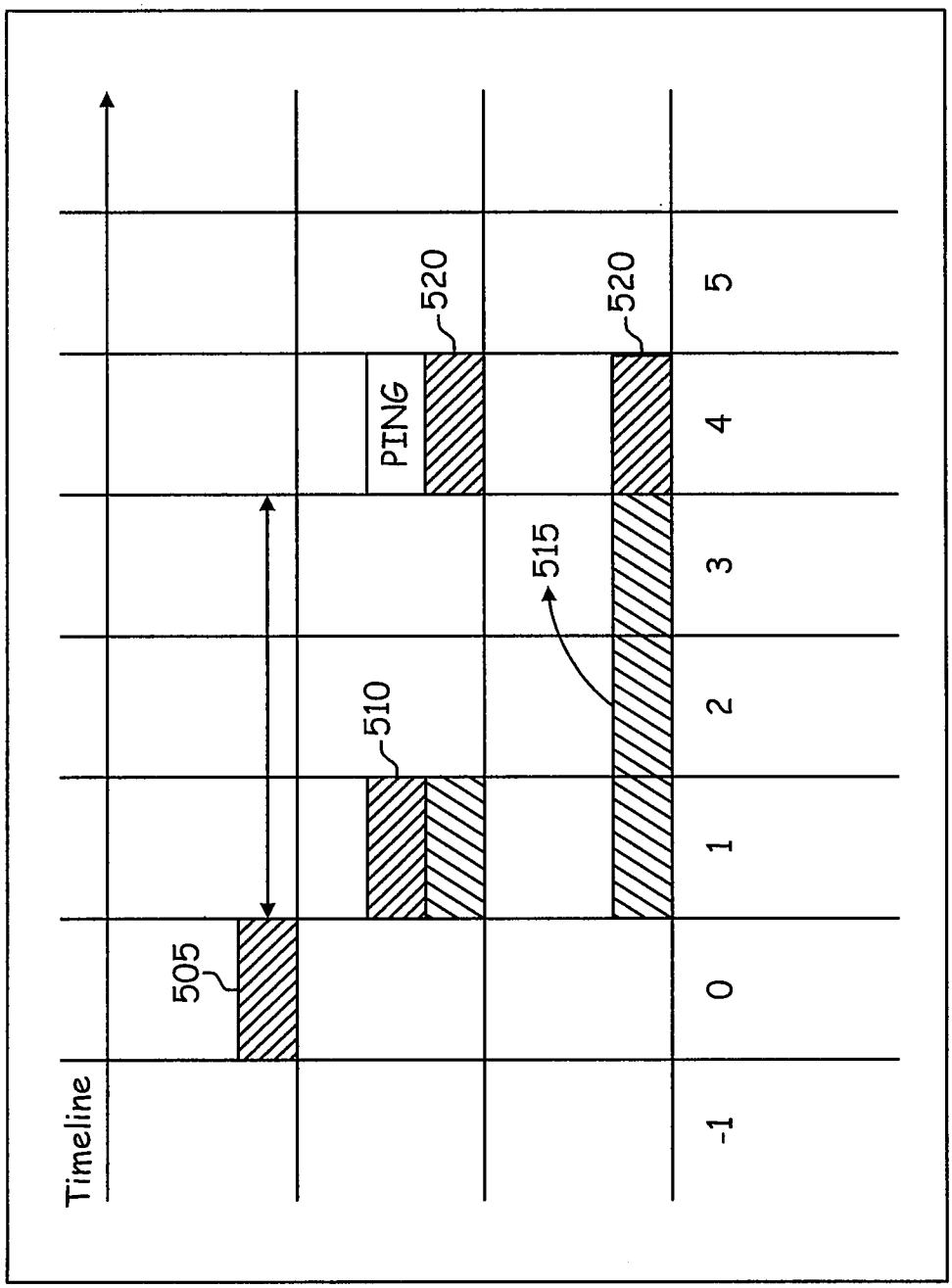

FIG. 5

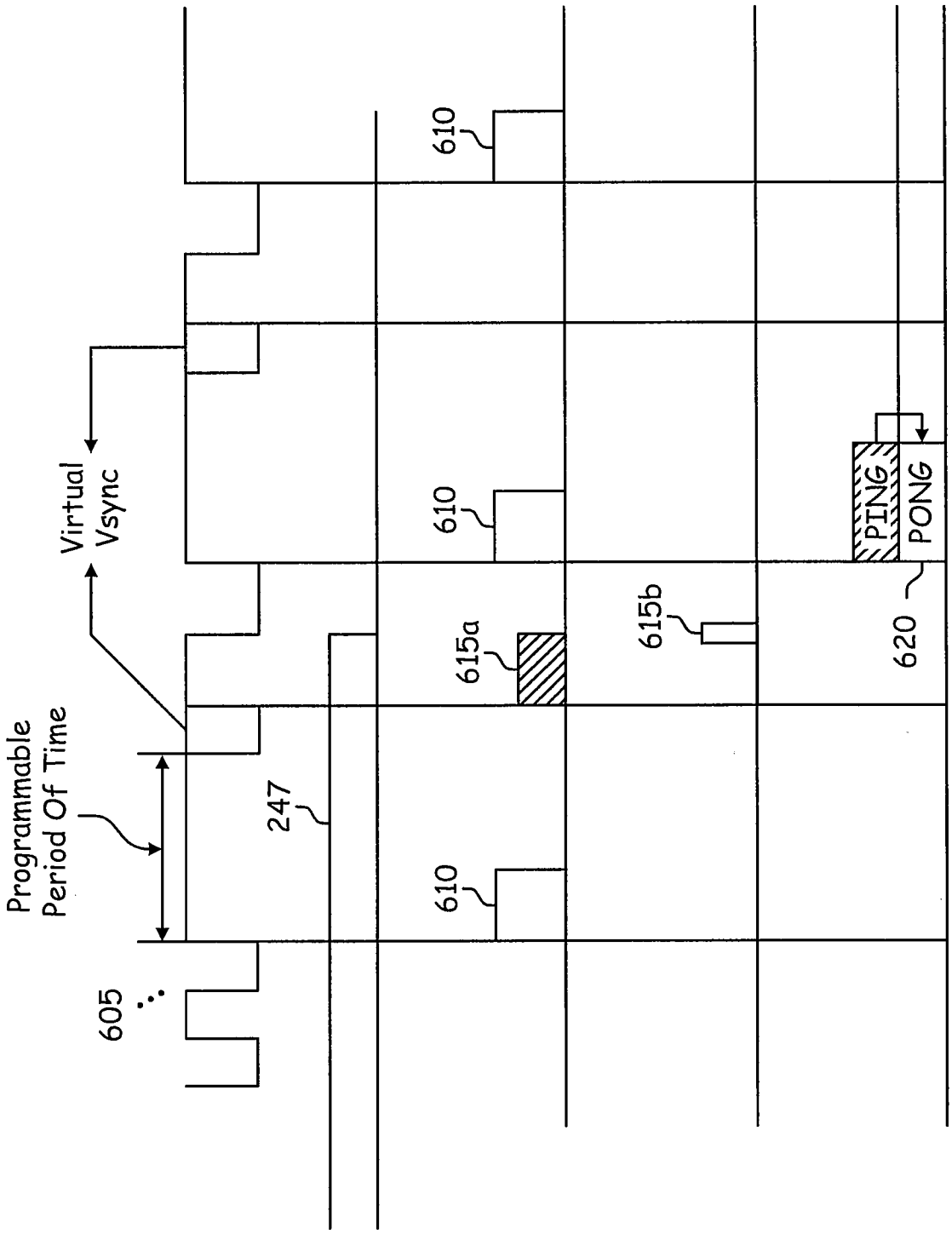
610
610
610
Virtual Vsync
Programmable Period Of Time
247
605
615a
615b
620
PING
PONG

FIG. 6

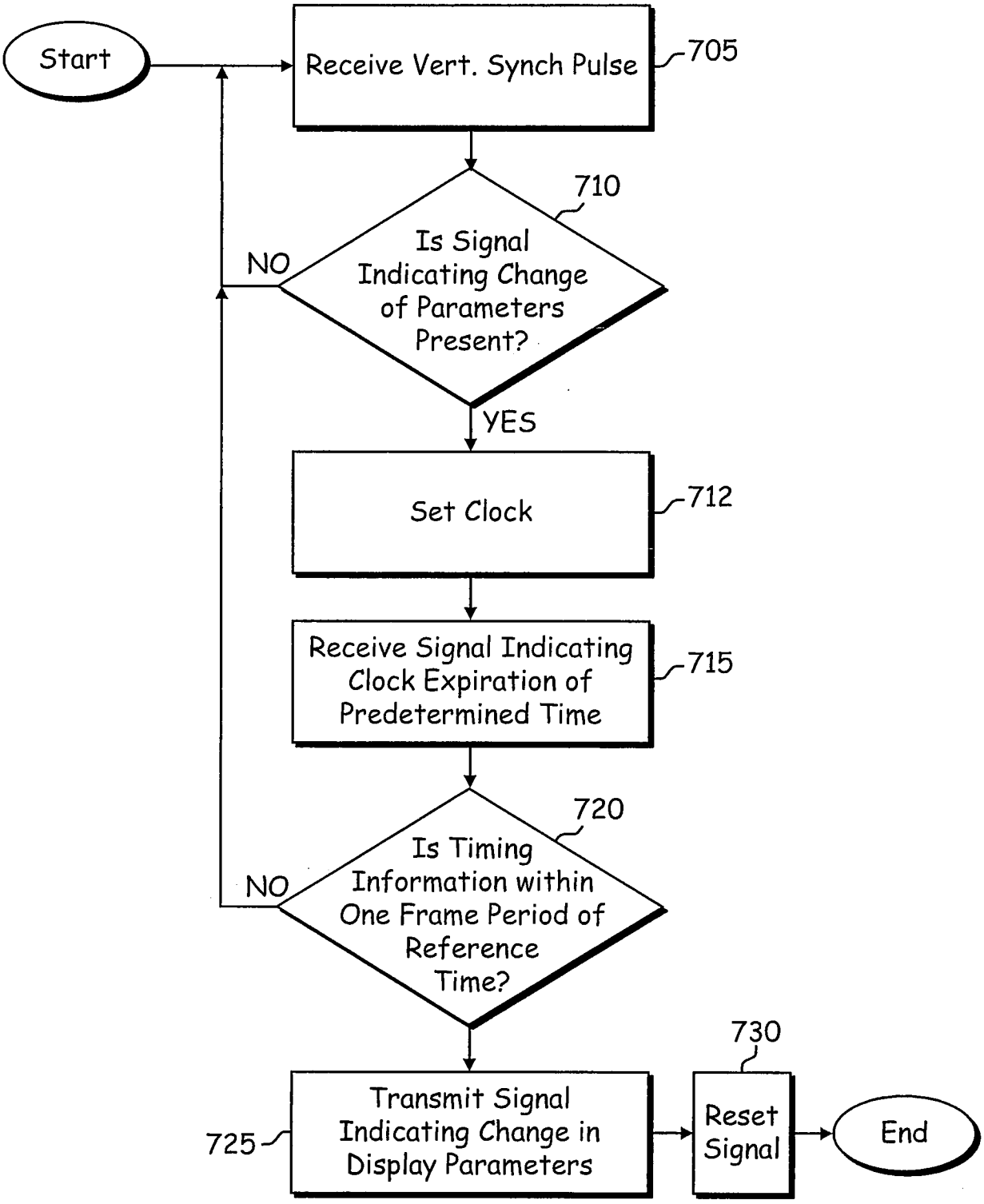
Start
Receive Vert. Synch Pulse
705
710
Is Signal Indicating Change of Parameters Present?
NO
YES
Set Clock
712
Receive Signal Indicating Clock Expiration of Predetermined Time
715
720
Is Timing Information within One Frame Period of Reference Time?
NO
730
Transmit Signal Indicating Change in Display Parameters
725
Reset Signal
End

FIG. 7